Wallasey District Council.

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH.

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DUNSFORD & SON, PRINTING CONTRACTORS, LIVERPOOL & LONDON.

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URBAN SANITARY

DISTRICT OF WALLASEY.

To the Chairman and Members of the Health Committee.

Gentlemen,

I beg to present to you my Annual Report for the year 1896.

The number of inhabited houses at the end of 1896, supplied by Mr Burnley, is as follows :—

Poulton-cum-Seacombe	3,641
Liscard	4,315
Wallasey	582
Total...	8,044

No. of Inhabited Houses

At the end of 1895, the total amounted to 8,044, showing an increase of 494 houses in 1896, compared with 480 in 1895 and 440 in 1894.

Increase o Inhabited Houses

At the Census of 1891, the average number per house was 5·2, and in 1881, 5·6, so that there was a decline of 0·4 per house in the decade. I think it is probably safe to assume that 5 per house is about the average, which gives a population of 42,690. If we allow for the floating population in the docks and river, 43,000 will represent the total at the end of the year. This takes no account of the lage number of summer visitors to New Brighton and other parts of the district.

Average p House

Estimated Populatio

At the end of 1895, the population was estimated at 40,000, so that the mean, at the middle of the year, was 41,500, which will be taken as the basis for all calculations. There is thus an estimated increase of about 3,000 for the past year, as compared with an annual average increase of 1,200 for the period between 1881 and 1891.

Mean Populatio

TABLE I.—Showing increase of Population since Census.

	Date.	No. of Inhabited Houses.	Persons per House.	Population.
Census,	1891	6,364	5·2	33,227
January,	1892	6,537	5·2	33,992
,,	1893	6,928	5·1	35,332
,,	1894	7,124	5·1	36,332
,,	1895	7,564	5·1	38,576
,,	1896	8,044	5·0	40,220
,,	1897	8,538	5·0	42,690

At the begining of the century the population was 663.

Deaths and Death Rate

The number of Deaths in 1896 was 613, as against 604 in 1895—an increase of only 9, while in 1895 it was 78 more than in 1894.

The Death-Rate is thus 14·77 per 1,000 per annumn, compared with 15·48 in 1895—a decrease of 0·71.

English Death Rate

The Death-Rate for England and Wales in the past year was 17·1 per 1,000. as compared with 18·7 in 1895.

The Urban Rate was 18·0 per 1,000, and in the Rural Districts 15·3 per 1,000. Our Death-Rate is thus 2·4 below the General Rate, 3·3 below the Urban Rate, and 0·6 below the Rural Rate.

Of the Deaths, 321 were Males and 292 Females.

Average Rate for last Decade

Our average Death-Rate for the last 10 years (1886-1895) was 16·12, so that the rate for the past year is 1.35 below this average.

Births and Rates

The Births numbered 1,172, compared with 1,104 in 1895—giving respective Rates of 28·24 and 28·30.

Of these Births, 569 were Males and 603 Females.

Natural Increase of Population

The natural increase in the Population, *i.e.* the excess of Births over Deaths, was therefore 559, the great bulk of the rapid increase of our Population being of course chiefly due to immigration from surrounding districts.

English Birth Rate

The Birth-Rate in England and Wales was 29·7 per 1,000, so that our rate is 1·5 below the English Rate.

The annexed Table gives a summary since 1890 of the number of Births and Deaths with the corresponding rates :— Births and Deaths since 1890, with Rates

TABLE II.

	1890.	1891.	1892.	1893.	1894.	1895.	1896.
Births	953	994	1078	1108	1003	1104	1172
Birth-Rate	29·32	29·67	31·24	31·21	27·08	28·30	28·24
Deaths	550	594	535	641	526	604	613
Death-Rate	16·92	17·73	15·50	18·05	14·21	15·48	14·77

TABLE III.—Shows the distribution of the Births in the different Townships, since 1891 :— Births in Townships

Births.	1891.	1892.	1893.	1894.	1895.	1896.
Poulton-cum-Seacombe	526	599	570	534	567	608
Liscard	401	416	463	408	460	491
Wallasey	67	63	75	61	77	73

This shows that Seacombe has 117 more Births than Liscard, despite a smaller estimated Population, as in Table V.

TABLE IV.—Shows the number of Deaths in the different Townships since 1893, with the corresponding rates :— Deaths in the Townships

Deaths.	Poulton-cum-Seacombe.	Liscard.	Wallasey.
1893	308 (=19·24)	294 (=16·95)	39 (=17·72)
1894	250 (=15·06)	248 (=13·70)	28 (=12·17)
1895	316 (=18·16)	256 (=13·36)	33 (=13·46)
1896	291 (=16·16)	284 (=13·65)	38 (=14·07)

The number of Deaths for the Townships, as given above, does not correspond with that given in the large printed sheet, or in the sheet marked **A**, because fatal cases in Hospitals are here referred to the Townships from whence they came.

TABLE V.—Population of the Townships. Population of the Townships

	Census 1881.	Census 1891.	Estimated at Middle of 1896.
Poulton-cum-Seacombe ...	7,640	14,900	18,000
Liscard	11,612	16,356	20,800
Wallasey	1,940	1,971	2,700

Full information is given in the large sheet at end of Report as to the number of Males and Females, the different Ages of Death, the Townships in which the Deaths took place as well as the Deaths in Public Institutions (Hospitals, &c.) and among Non-Residents; likewise as to the number of

Deaths in each month and in each quarter; with a detailed classification of the different causes of Death. Table B gives Mortality Statistics, apart from Mortality Returns, and is modelled now to suit the information derived from the Infectious Diseases' Notification Act, so as to give the notified cases of each Disease in the different Townships, and the number removed to the Isolation Hospital. It also gives details as to the Population and Births, which are found in the text of my Report. Tables A and B are not printed in the Report.

Mortality in the Quarters

TABLE VI.—Showing the Mortality, in the different Quarters of the Year.

1894.	Quarters :—	1st—173	2nd—131	3rd—114	4th—108
1895.	,,	,, —158	,, —137	,, —154	,, 155
1896.	,,	,, —155	,, —141	,, —131	,, —186

The last Quarter of the year had thus by far the largest Mortality, the first Quarter coming next.

I give next the usual Meteorological Table furnished through the courtesy of Mr. Plummer of Bidston Observatory :—

Latitude 53° 24′ 5″ N. Longitude 3° 4′ 20″ W.

Height of Barometer above the mean level of the sea 201 feet.

1896.	Mean Temperature. Degrees.	Mean Barometer. Inches.	Rain. Inches.
January	41·6	30·311	1·220
February	41·2	30 284	1·064
March	44·3	29·741	3·186
April	48.7	30·141	1·144
May	54·5	30·273	0.390
June	61·2	29·928	2·081
July	61·1	30·002	2·553
August	58·3	30·029	2·503
September	55·8	29·702	4·456
October	45·0	29·721	3·566
November	41·1	30·155	1·068
December	39·8	29·717	3·402
			26·633

A comparision between the above table and that for 1895 gives the following results as regards Temperature and Rainfall, the sign + meaning an increase for 1896, and the sign – a decrease for 1896.

	Mean Temp. in Degrees.	Rainfall in Inches.	Comparison with 1895
January	+ 8·4	–1·678	
February	+11·1	+0.742	
March	+ 3·6	+0·389	
April	+ 1·1	–0·638	
May	+ 0·2	–0.026	
June	+ 3.5	+1·086	
July	+ 1·7	–1·255	
August	– 2.1	+0 650	
Septemper	– 5·2	+3.371	
October	– 0·6	–1·877	
November	– 4·3	–1·372	
December	– 0·3	+0·966	
Total ...	+16·7	+0·358 inches.	

This table of comparisons shows that for the whole year there was an increase of Temperature amounting to 16·7 degrees, while the rainfall was almost the same in amount as in the previous year.

The increase in Temperature was during the first 7 months of the year, and there was really a decrease in the last 5 months, most marked in September and November.

The rainfall was heaviest in the latter part of the year.

With the Higher Temperature during the year, there was a diminution in the Deaths from Bronchitis, amounting to 12. Other remarks connected with the Temperature and Rainfall will be reserved for mention under the Specical Diseases affected by such meteorological conditions, *e.g.*, Diarrhœa, Enteritis and Typhoid.

The next table gives the Mortality (from all causes) under one year, the so called Infant Mortality, which is always looked on as an important index to the healthiness and sanitary condition of a locality.

It also gives the uumbers of deaths under 5 years of age.

TABLE VIII.

Year.	Infants under one year.	Rate of Infant Mortality per cent of Deaths.	Rate of Infant Mortality per 1,000 Births.	Under 5 Years.	Infant Mortality
1892	123	22·99	114·1	186	
1893	167	26·05	150·7	233	
1894	116	22·05	115·6	192	
1895	162	26·82	146·7	225	
1896	168	27·40	143·3	224	

There were thus 6 more Deaths of Infants under 1 year in 1896 than in 1895.

The Infant Mortality for England and Wales per 1,000 births was 148 compared with our 143·3, and the English Rate includes Rural as well as Urban Rates, so that in this respect we still compare very favourably with the country in general.

Details of Deaths under 1 year in 1895 and 1896 from those diseases most fatal to Infants are here given.

Fatal Infantile Diseases

	1895.	1896.
Diarrhœa	19	26
Convulsions	12	19
Bronchitis	19	10
Enteritis	23	7
Premature Birth ...	17	21
Atrophy and Debility	34	36
Total ...	124	119

This table of 6 Infantile Diseases shows a decrease of 5 deaths in 1896 compared with 1895, the deaths from Bronchitis and Enteritis being fewer, while there are more from Diarrhœa. Further comment on this will be found under my remarks on Diarrhœa later on.

Deaths of Old People

Of the total number of Deaths (613), 132 were over 65 years of age, and of these 13 were over 85.

Uncertified Deaths

Only 10 out of the 613 Deaths were not certified either by a registered Medical practitioner or by a Coroner, which gives a per centage of 1·6 uncertified Deaths, compared with 2·2 for England and Wales.

Inquests

47 Inquests were held during the year, as against 56 in 1895, giving a per centage of 7·6 Deaths certified by the Coroner, compared with 6·2 for England and Wales. Deducting 10 Drowning cases, (4 non-residents), the per centage is 6-3.

Analysis of Deaths (See Sheet at end of Report)

I now give an analysis of the large sheet, which supplies a complete statement of particulars of all the Deaths during the year. The subjoined tabular synopsis gives a useful survey of the different classes of diseases, with the mortality of each, both in absolute numbers and in rates per 1,000 per annum. It also gives the mortality of the leading forms under each class with the exception of Zymotics, which are given in fuller detail in the succeeding table.

TABLE IX.

Classes.	1892.	1893.	1894.	1895.	1896.
Zymotics	71—2·05	80—2·25	67—1·81	57—1·46	64—1·54
Constitutional ...	75—2·17	102—2·87	76—2·05	91—2·3	95—2·2
Cancer	27	24	21	37	25
Phthisis	31	59	43	41	43
Local Diseases ...	258—7·47	282—7·94	254—6·86	305—7·82	303—7·3
Apoplexy	22	17	18	27	27
Convulsions ...	17	23	19	14	21
Brain Disease including Meningitis	24	38	29	19	17
Heart Disease ...	44	49	42	53	52
Bronchitis	47	45	29	57	49
Pneumonia ...	34	33	51	46	49
Liver Disease ...	6	7	7	5	8
Bright's Disease	7	6	5	4	12
Developmental ...	86—2·49	113—3·18	75—2·02	86—2·205	97—2·3
Premature Birth	25	18	14	18	21
Old Age	26	45	24	19	25
Atrophy and Debility	24	40	23	40	36
Drowning	12	12	10	19	10

The first-class, viz., Zymotics, is fully detailed in the succeeding Table X.

Under *Constitutional* Diseases, there is a marked decrease of Deaths from Cancer, viz., 12 less, while the Deaths from Phthisis are 2 more.

The chief headings under *Local* Diseases are clearly set forth in the Table given above.

Drowning cases amounted to 10, as compared with 19 in 1895. Of these 10, 4 were non-residents.

The next Table shows the Deaths from Zymotics, confining the term to those reckoned as such in the Registrar-General's Returns and in all health reports. The full list of Zymotics is given in the large printed sheet, which will be found at the end of this Report.

TABLE X.—Deaths from Zymotic Diseases.

Zymotic Deaths

Zymotics—	1890.	1891.	1892.	1893.	1894.	1895.	1896.
Total	50	69	71	80	67	57	64
Smallpox	0	0	0	0	0	0	0
Measles	10	4	31	1	8	1	4
Scarlet Fever	12	7	3	2	5	4	4
Diphtheria and Croup ...	3	11	6	9	9	9	6
Whooping Cough	8	17	7	12	14	6	10
Fever (Typhoid)	9	20	20	23	13	8	10
Diarrhœa	8	10	4	33	18	29	30
Cholera (Simple)	0	0	0	0	0	0	0
Rate per 1,000 of population	1·53	2·05	2·05	2·25	1·81	1·46	1·54
English Rate do.	2·03	1·83	1·90	2·47	1·76	2·14	2·18

Our average Zymotic Rate for the last ten years (1886-1895) was 1·96, as compared with 1·54, in 1896, so that for the past year the rate is 0·42 under the average for ten years past.

Comparison of Zymotic Rates

The Zymotic Rate in England and Wales was 2·18 per 1,000, as compared with our 1·54 but the English Rate includes Rural as well as Urban Rates, and is thus sensibly lowered.

Our Rate is thus 0·64 lower than the English Zymotic Rate.

The next Table shows where and when the Deaths from the principal Zymotics took place, and this should be studied in conjunction with the map, which brings the same thing out in a more striking way, a distinguishing mark being alloted to each disease.

Localities of Fatal Zymotics

TABLE XI.—Shows Localities of Fatal Zymotic Cases.

TYPHOID FEVER.

(1)	January ...	35, Hertford Drive, Liscard.
(2)	March ...	38, Albemarle Road, Seacombe.
(3)	,, ...	16, Stamford Avenue, Liscard.
(4)	May ...	M. L. H. from 17, Waterloo Road, Liscard.
(5)	June ...	M. L. H. from Mullineux Cottages, Wallasey.
(6)	September...	M. L. H. from 8, Rake Lane, Liscard.
(7)	,, ..	M. L. H. from 5, Bosnia Street, Seacombe.
(8)	November ...	20, Hertford Drive, Liscard.
(9)	December ...	M. L H. from 50, Hatherley Street, Seacombe.
(10)	,, ...	New Brighton Hotel, Liscard.

DIPHTHERIA.

(1)	August ...	St. Barnabas Home, Liscard.
(2)	November ...	7, Tulip Grove, Seacombe.
(3)	December ...	Fair View, Sea View Road, Liscard.

CROUP.

(1)	March ...	7, Gresford Place, Egremont.
(2)	November ...	50, Kenilworth Road, Seacombe.
(3)	December ...	25, Bell Road, Seacombe.

SCARLATINA.

(1)	February ...	M. L. H. 72, Littledale Road, Seacombe.
(2)	July ...	3, East View, Wright Street, Egremont.
(3)	September...	M. L. H. 179, Brighton Street, Liscard.
(4)	,, ..	,, ,, ,, ,,

MEASLES.

(1)	January ...	36, Palermo Street, Seacombe.
(2)	May ...	34, Ashville Road, Seacombe.
(3)	July ...	23, Milton Road, Seacombe.
(4)	,, ...	,, ,,

WHOOPING COUGH.

(1)	June	...	3, Cherry Bank Road, Seacombe.
(2)	August	...	7, Prescot Street, Liscard.
(3)	October	...	20, Tower Street, Liscard.
(4)	November	...	Stafford Buildings—Withens Lane, Liscard.
(5)	,,	...	35, Village, Liscard.
(6)	,,	...	11, Greenfield Street, Liscard.
(7)	,,	...	22, Queen's Hall Cottages, Liscard.
(8)	December	...	5, Wallasey Terrace, Wallasey.
(9)	,,	...	6, Big Yard, Wallasey.
(10)	,,	...	13, Grenville Terrace, Wallasey.

DIARRHŒRA.

(1)	March	...	39, Palermo Street, Seacombe.
(2)	June	...	50, Ashville Road, Seacombe.
(3)	,,	...	13, Latham Avenue, Liscard.
(4)	,,	...	3, Byerley Street, Seacombe.
(5)	July	...	40, Stanley Street, Seacombe.
(6)	,,	...	25, Shakespeare Road, Seacombe.
(7)	,,	...	30, Rankin Street, Seacombe.
(8)	,,	...	11, Havelock Street, Seacombe.
(9)	,,	...	1, Romeo Street, Seacombe.
(10)	,,	...	37, Palmermo Street, Seacombe.
(11)	,,	...	19, Cherry Bank Road, Seacombe.
(12)	,,	...	Woodbine Cottage, Wallasey.
(13)	,,	...	9, Short Street, Seacombe.
(14)	,,	...	2, Massey Park, Wallasey.
(15)	,,	...	Limekiln Lane, Seacombe.
(16)	,,	...	15, Liscard Road, Liscard.
(17)	August	...	30, Havelock Street, Seacombe.
(18)	,,	...	10, Grosvenor Road, Liscard.
(19)	,,	...	16, Shaw Street, Seacombe.
(20)	,,	...	35, Palermo Street, Seacombe.
(21)	,,	...	16, Church Street, Liscard.
(22)	,,	...	30 Rankin Street, Poulton.
(23)	,,	..	5, Cherry Bank Road, Seacombe.
(24)	,,	...	47, Union Street, Egremont.
(25)	,,	...	29, Greenfield Street, Liscard.
(26)	August	...	18, Church Road, Seacombe.
(27)	September	..	5, Oakdale Road, Seacombe.
(28)	,,	...	27, Lucerne Road, Seacombe.
(29)	October	...	15, Portia Street, Seacombe.
(30)	November	...	41, St. Alban's Road, Liscard.

The next table shows the total number of Infectious Diseases reported during the year under the Infectious Diseases Notification Act, with the Townships in which they occurred.

Infectious Notifications in the different Townships

TABLE XII.—Cases of Infectious Disease notified in the Urban District of Wallasey during the year, 1896.

Townships.		Diphtheria.	Membranous Croup.	Erysipelas.	Scarlatina.	Typhoid.	Puerperal.	Total.
Poulton-cum-Seacombe ...	Under 5 Years.	2	3	1	19	3	—	28
	Over 5 Years.	8	2	24	34	35	1	104
Liscard. Egremont ..	Under 5 Years	1	—	1	12	2	—	16
	Over 5 Years	4	—	8	13	14	—	39
Liscard ...	Under 5 Years	1	—	—	11	1	—	13
	Over 5 Years	5	—	8	24	14	1	52
New Brighton ...	Under 5 Years	—	—	1	7	2	—	10
	Over 5 Years	3	—	5	18	26	2	54
Wallasey	Under 5 Years	1	—	—	6	4	—	11
	Over 5 Years	5	—	2	13	12	—	32
Totals	Under 5 Years	5	3	3	55	12	—	78
	Over 5 Years	25	2	47	102	101	4	281
								359

Smallpox

I now proceed to examine the different Zymotics in detail. During 1896 no case of Smallpox occurred.

Measles

4 fatal cases of Measles were recorded, compared with one in 1895, giving the low mortality of 0·09 per 1,000, as against English Rate of 0·56. The fatal cases were all in Seacombe (see Table XI.).

Scarlatina

Scarlet Fever also caused 4 deaths, the same as last year. The mortality is 0·09 per 1,000 as against an English Rate of 0·18.

157 cases were notified during the year, compared with 130 in 1895 and 246 in 1894. The 4 deaths give a mortality of 2·5 per cent of notified cases, an extremely low rate for Scarlet Fever.

Table XIII. shows the numbers notified in each Township for the different months. Seacombe contributed 53 cases, Liscard 85 and Wallasey 19.

60 cases of this Fever were treated in Mill Lane Hospital, as against 47 in 1895.

TABLE XIII.

Typhoid Notifications in 1896.		Jan.	Feb.	March	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Seacombe		0	2	0	4	8	0	3	0	6	9	3	3	38
Liscard.	Egremont	0	0	0	1	0	2	1	0	2	4	4	2	16
	Liscard Proper ...	2	0	0	0	1	1	1	0	0	3	7	0	15
	New Brighton ...	1	0	1	0	3	2	3	7	4	4	1	1	27
Wallasey		0	0	1	0	0	1	1	4	1	1	3	4	16
Totals		3	2	2	5	12	6	9	11	13	21	18	10	112

Scarlatina Notifications in 1896.		Jan.	Feb.	March	April	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.	
Seacombe		5	8	4	5	2	0	2	9	5	2	5	6	53	
Liscard.	Egremont	7	4	1	1	1	0	4	2	2	1	0	2	25	84
	Liscard	4	5	0	0	3	1	1	3	4	2	2	9	34	
	New Brighton ...	2	0	3	2	1	0	1	2	2	3	5	4	25	
Wallasey		1	1	0	0	1	3	0	4	3	2	0	4	19	
Totals		19	18	8	8	8	4	8	20	16	10	12	25	156	

As usual, careful disinfection of the premises and of all infected articles was carried out by the Council's Officials, and notices were sent to the School Authorities in all cases where a member of an infected household attended school. Similar notices are sent in cases of other Infectious Diseases which are notified to the Sanitary Authority.

The Inspector of Nuisances visits each house, and leaves a printed slip with directions to get disinfection carried out when the illness is over, to prevent children going to school, &c. The milk supply is also carefully watched, but I have been unable to trace any case to this cause.

Diphtheria

Diphtheria and Membranous Croup caused each 3 deaths, as against 4 and 5 in 1895. The mortality from Diphtheria is thus 0·07, or if Croup is included, 0·14 against an English Rate of 0·29. 30 cases of Diphtheria were notified and 5 of Membranous Croup. These 35 give a mortality of 17·1 per cent. of notified cases.

Table XII. shews the distribution of these cases in the different Townships There was no special grouping in any one locality, no apparent connection with the milk supply, and no spread from any one school.

In several of the cases there were foul privies or ashpits, and in several an escape of sewer gas from defective jointing at the water closet or from choked drain was discovered.

8 cases were treated in Mill Lane Hospital and all recovered.

Whooping Cough

Whooping Cough caused 10 deaths, as against 6 in 1895 and 14 in 1894. This gives a Death rate of 0·24 per 1,000, as compared with an English rate of 0·41 per 1,000.

The Zymotic Disease, in common with Measles and Diarrhœa is not notified under the Act of 1889.

It prevailed extensively in the Village of Wallasey at the close of the year, and on December 1st, I advised the closing of the Day Schools in Wallasey, a policy which was extended to the Sunday Schools. They were re-opened towards the close of January, 1897. 3 deaths occurred in Wallasey in December.

Diarrhœa

Diarrhœa caused 30 deaths, compared with 29 in 1895. The rate is thus 0·72 per 1,000, as against 0·74 in 1895. The English rate was 0·55, or 0·17 lower than ours. I have before remarked that it is in Diarrhœa and Typhoid alone we have generally higher rates than the English Rate. 3 deaths took place in June, 12 in July, 10 in August, and 2 in September, the months when the temperture was highest, (see Table VII.) July and August being the hotest. Rain began to fall heavily towards the end of August, and the rainfall in September and October was the heaviest of all the months. This amount of wet with the comparatively low temperture in these months doubtless prevented a much higher mortality from Diarrhœa as these two conditions (abundant wet and moderate low temperature) always are opposed to the prevalence of Diarrhœa.

Of the 30 deaths, 26 were under 1 year.

In my Report for 1895, I pointed out that we had the extraordinary number of 29 deaths from Enteritis, 23 being under 1 year, and occurring just in those months when Diarrhœa was so prevalent.

I also gave reasons for my belief that the deaths so attributed to Enteritis should be classed under Diarrhœa (the two diseases being practically the same in young children). This year 11 deaths are ascribed to Enteritis, 7 being

under 1 year, and all 7 taking place in July and August. In reality therefore, the deaths from Diarrhœa and Enteritis were much fewer in 1896 than 1895.

I also stated in my last report that Oakdale and the District about Wheatland Lane suffered far more severely from Diarrhœa and Enteritis than other parts of the district, and I attributed this chiefly to the bad drainage.

Thus out of the 58 deaths from Diarrhœa and Enteritis in 1895, 25 occurred in these localities.

This year 11 out of 30 deaths from Diarrhœa occurred in the same localities, and 5 out of 11 deaths from Enteritis.

Only one of the fatal cases of Enteritis occurred in Oakdale, and 5 out of the 30 cases of Diarrhœa, so that as far as one can judge from the records of a single year, the reconstruction of the drainage of Oakdale seems already to have borne good fruit.

I next come to Typhoid or Enteric Fever—one of the most preventible of our Zymotic Diseases and which therefore if prevalent to any extent in a locality furnishes occasion for searching inquiry for the cause of such prevalence. Typhoid Fever

10 deaths from Typhoid were registered in 1896, compared with 8 in 1895, 13 in 1894 and 23 in 1893. Table X. shows the mortality since 1891.

These 10 Deaths give a mortality of 0·24 per 1,000, as against 0·20 in 1895, 0·35 in 1894 and 0·64 in 1893.

The English Rate for Fever (including Typhoid, Typhus and Simple Continued Fever) was, for 1896, 0·17, or 0·7 lower than ours.

Our Average Typhoid Rate for the last 10 years (1887-1896) is 0·39 per 1,000, whilst the average English Rate for the same period (including the 3 Fevers as above) is only 0·18 or less than half our Rate. It is however most gratifying to note that for the last 3 years there has been a very marked decline in our Typhoid Death Rate as compared with the first 7 years of the Decade.

112 cases were notified in 1896, as compared with 67 in 1895, 89 in 1894 and 132 in 1893.

These 112 cases give a mortality of 8·9 per cent. of notified cases as against 11·9 per cent in the previous year, so that, although we had a very large increase in the number of cases, the mortality was lower in proportion, apparently pointing to a milder form of the disease.

Table XIII. shows very clearly the numbers notified in the different months. It is well known that Typhoid generally increases in Autumn and continues more or less to the end of the year. In August 11 cases were notified, in September 13, in October 21, in November 18 and in December 10.

May, as an exception, had 12 notified cases.

The increased Temperature of Summer and Autumn clearly favours the development of the dormant germs into activity and it is some time before the increasing cold is enough to check their vitality.

Table XIII. also gives the numbers for the different Townships, while the fatal cases are given in Table XI.

70 of the notified cases were admitted into Mill Lane Hospital, with only 5 deaths.

In 3 or 4 cases, oysters were suspected to be the cause.

An examination of the localities of the 112 notified cases shows that 6 occurred in Oakdale (3 being in Larch Road), as compared with 9 in 1895. 12 occurred in Wheatland Lane District, including the streets draining into it, but of these it should be noted that 5 were notified from one house (10 Hawthorne Grove), 3 in another (Shaftsbury Cottages), and 2 in 113 Wheatland Lane, so that only 3 houses had fresh outbreaks in this sub-district.

The lower part of New Brighton, below Grosvenor Road, had 12 cases notified viz., in Grosvenor Road, Waterloo Road, Egerton Street (3 cases), The Avenue, Egerton Street, (2 cases), Tollemache Street, Belmont Road and and Higher Parade.

Sutton's Cottages, off Mount Pleasant, had a group of 3 all in adjacent houses, to which I shall refer presently.

Wallasey had 16 notifications against 0 in 1895, several occurring about Granville Terrace and the surrounding portion of the village.

A study of these localities is very interesting, because there the drainage is known to be bad or to have been bad very recently. For instance the whole of the sewers of Oakdale have had to be reconstructed within the last two years or so, and it was only in the past year that the sewers draining the houses of Larch Road were reconstructed. A good deal has also been done to the drainage of the Wheatland Lane District, but in my last report I pointed out that it might be more than a year after the laying of new sewers before impovement was seen, as it is known that when once Typhoid germs impregnate the soil it takes a good long time before that locality becomes quite free from them. Still a decided improvement is noticeable in the past year, due I believe to improved drainage, and this is all the more striking as there was such a marked increase in the total number of notified cases, so that these localities would probably have suffered far more than they have done, had it not been for the extensive relaying of bad sewers. The history of the outbreak in Sutton's Cottages is specially interesting in this light. The 3 cases were notified from the 15th to the 17th August and I at once communicated with the Engineer and Surveyor's Department, asking for an inspection of the sewer common to these cottages, which runs through the back-yards. An examination was made at one point about the middle of the sewer and it was reported to be in good condition and running freely. Owing to various defects in the sanitary fittings discovered on the Inspector's visit to the houses where Typhoid occurred, Mr. Bascombe had an interview with the agent, who agreed to a thorough remodelling of all the Water Closets, &c., including the relaying of the whole sewer. During this relaying, it was found that the sewer at the back of the affected houses was blocked, had broken pipes with bad joints and that the soil was thoroughly impregnated with sewage which was actually trickling into the cellars of two of the houses. There can be no reasonable doubt that this outbreak was due to the condition of the drainage, and it is also clear that an inspection of a sewer at one point is no ground for inferring it is in good condition all along, unless it is examined at several points, and found to have good gradients and good joints.

I have a tabulated list of all defects found at houses where cases occurred but this is far too lengthy to be reproduced. They include choked drains, defective jointing of water closets to the outlet pipe, allowing escape of sewer-gas, deficient trapping &c. Notices were served to remedy all these defects.

The question now arises how it comes that there has been a greater prevalence of Typhoid in 1896 than in 1895—112 notifications to 67, in spite of a large amount of work in reconstructing sewers, and this, too, in a year marked by no excessive temperature during the months when Typhoid is most rife, while at the same time there was more than an abundant rainfall. The fact is that Typhoid germs do not require a very High Temperature to be roused into activity and multiplication, and as regards the rainfall I believe the explanation I offered in my report for 1891 holds good for the past year. In 1891 there were very similar meteorological conditions, and I wrote then as follows:—"The germs of the disease present in the excreta passing into the drains and sewers, are not speedily and efficiently swept away, but are in many instances retained owing to drains being blocked, and not self-cleansing, or at all events containing deposits. In many cases the germs can pass through faulty joints or broken pipes into the surrounding soil, which thus gets impregnated with the poison. If the house drains and sewers were all tight and had a proper fall, an abundant rainfall would only do good by flushing them clean, but with a germ-laden soil and a rise in the level of the sub-soil water, the poison is disturbed, roused into fresh activity, and so may pass through defective pipes or otherwise into houses or into the air breathed by those living over or near such saturated soil."

The Report on the state of the sewers presented in the end of 1895 by Mr. Salmon gives ample evidence that I have not exaggerated their defects in my Annual Reports for years back, and towards the close of 1896 the Council resolved to spend about £30,000 in the main sewers. This I believe to be the most important step in connection with the sanitary condition of the District that has been taken for the past 20 years or more. The essential complement to this work on the main sewers is furnished in a weighty declaration made by the Chairman of the Works Committee in January of the present year, part of which I quote "Some people imagined because they had inaugurated a large scheme for dealing with the sewers that that was all they were going to do, and they felt disappointed when they saw roads in their immediate neighbourhood were not included in the schedule of that scheme. That was a great mistake, for the usual rectification of sewers throughout the District was and would be continually going on. The large scheme recently approved simply applied to certain main sewers, and would not at all supersede work &c. in other directions, which would go on as heretofore, and probably with increased energy."

With the energetic carrying out of this policy of reconstructing subsidiary but defective sewers, which in most cases actually receive the house drainage, and with improved main sewers, we may in a few years look forward to a marked decrease of Typhoid in our district.

With the near prospect of extensive reconstruction of many of our sewers I would specially recommend that the low-lying portion of New Brighton should be speedily attended to. It has suffered specially for years back from Typhoid, and I feel sure a thorough re-modelling of the sewers and defective house drains in this part will well repay the expenditure. I refer especially to Egerton Street and The Avenue, Tollemache Street, and all the roads leading off from Victoria Road towards the north.

That portion of Seabank Road sewer between Sandfield Road and Manor Road also needs early attention, as well as the sewer in Wallasey Village between Grove Road and Leasowe Road.

No outbreak during the year could be traced to water or milk. If the latter had been responsible, the disease would have shown itself plainly among the customers of one or more milk-vendors, and more than one member of such households would have been affected. But this was not so, and where several persons in one household were affected, it was in poor dwellings where no proper care as to isolation or disinfection was employed. Nor, in my opinion, can we put the blame largely on importation from Liverpool. No doubt some cases may arise thus, but not the great mass of our Typhoid cases. If it were so, Birkenhead, Bootle, Waterloo-cum-Seaforth and other places would suffer equally with us from such imported cases. But they do not, as I showed in a report to the Health Committee, which I cannot reproduce here as the statistics were drawn from private, though official sources.

I hope, however, not to be obliged in the future to dwell at such detail on this heading, as I believe we are at last going to cope vigorously with the true cause of the trouble.

Typhus Influenza

No case of Typhus Fever has occurred for many years. Influenza caused 2 deaths in March, but the general cases were of a much milder form than in previous epidemics.

Flushing of Drains

The systematic Flushing of House Drains has gone on as usual throughout the year, and there is also special flushing of the drains of houses where Infectious Disease is notified. Disinfectants are poured down the drains in such cases.

145 cases were admitted into the Mill Lane Hospital for Infectious Diseases compared with 85 in 1895, 99 in 1894 and 62 in 1893. Particulars are given in the following Table.

TABLE XIV.—Cases treated in Mill Lane Hospital.

	Scarlatina.	Typhoid.	Croup.	Diphtheria.	Erysipelas.	Measles.
Poulton-cum-Seacombe	29 (3 deaths)	29 (1 death)	...	2	1	3
Egremont ...	4	8 (1 death)	...	2	...	...
Liscard proper	12	16	...	...	1	...
New Brighton	9	11 (2 deaths)	...	2	1	...
Wallasey ...	6	6 (1 death)	...	2	1	...
Total ...	60	70	...	8	4	3

145

Two or three cases entered as Typhoid turned out to be cases of simple Diarrhœa or some other Feverish attack.

Thus 8 deaths occurred among these 145 cases, a per centage of only 5·5. If the serious and almost desperate nature of some of the cases is taken into account, this is a most favourable per centage, and speaks most highly for the careful and skilled nursing as well as for the good ventilation and feeding &c. in the Hospital. The general advantage to the community at large resulting from the isolation of cases of Scarlet Fever, Diphtheria and Typhoid can hardly be estimated, but my returns of notifications show that, in many houses where removal to Hospital was refused, 4, 5 or 6 members of one family were infected one after the other. Even in Typhoid this was the case, as in small and poor houses disinfection either is not or cannot be properly and efficiently carried out.

During the past year a Berthon Tent made of wood with canvas roof has been erected and will accommodate at least 4 patients. I anticipate it will be chiefly useful in the event of isolated cases of Small-pox or possibly of Typhus.

The new wing added to the administrative block has proved of the greatest service, as the permanent nursing staff was increased during the past year, so that we now have a matron and 6 nurses. Before this addition we had frequently to engage temporary nurses at increased expense, and had difficulty in housing them.

The stabling and other buildings to accommodate plant for enabling the Council to collect the night soil by its own staff and horses are at present in course of erection, and should be ready for use before the end of the present year.

Six new cells are also being added to the Destructor.

The Night Soil Contractor has frequently caused trouble and created nuisances by emptying during the day Ashpits situated in localities scheduled for night emptying, but all this will probably cease when the Council controls its own staff of men for this purpose.

I cannot help here adverting to the disgraceful condition of some of the roads in the District. Even before they are adopted by the Council, some arrangement should be come to with the owners by which they might be made passable, and prevented from becoming a quagmire and positively dangerous. St. George's Road, Wallasey, Radnor Drive and Hertford Drive may be cited as examples of these bad roads. The two latter have been in this state for some years, and St. George's Road for many years back.

The separate Report made by the Chief Inspector of Nuisances will show the immense amount of work carried out in that department with regard to the inspection of houses, the detection and remedying of defective fittings about dwellings, as well as the attention paid to letters containing complaints of nuisances.

Owing to the increasing work thrown on this department, partly by the rapid growth of the District, and partly by late Acts of Parliament transferring to Sanitary Authorities the sanitary care of Factories and Workshops, it was found necessary to add two new Inspectors during the past year.

As there was no accommodation for this staff in the Central Building, a small house has been rented at 13, Church Street, and will soon be occupied.

A temporary Assistant has also been engaged to help in taking the measurements of the Factories and Workshops, so as to get the cubic space, and he will also assist in taking the cubic space of rooms in Houses let in Lodgings.

The Local Government Board has quite recently sanctioned the Bye-Laws drawn up for the regulation of such Houses. In my last Report I explained the advantages of enforcing these Bye-Laws, especially with a view to the prevention of overcrowding.

A Special Report was presented to the Health Committee in September on the Hermite system as employed at Ipswich, in view of its possible application to our system of sewers, but as this was printed and distributed to the Members of the Council, I need not refer to it further here

Vaccination Statistics

TABLE XV.—**Vaccination Return for Wallasey District from 1st July, 1895, to 30th June, 1896.**—*(Supplied by Mr. Stewart, the Registrar.)*

Successfully Vaccinated	968
Died under Vaccination Age	103
Insusceptible	3
Postponed by Medical Certificate	19
Removed, traced and Vaccination Officer notified ...	5
„ and not traced	13
In Default	4
Total Registered	1,115

This gives a percentage of only 1·5 of the 1,115 born, who have escaped Vaccination, and even this small number is almost entirely due to removal from our district. While children born in our district are thus carefully looked after, we have no guarantee that children coming here with their parents are protected against Smallpox.

Water Statistics

The next table gives particulars as to the Water Supply and distribution, as kindly supplied by Mr. J. H. Crowther, the Gas and Water Engineer.

Volume of Water pumped, 1/1/96 to 31st 12/96 ...	...561,567,260 galls.
Average pumped per day	1,534 309 „
Average consumption per day	38·19 „
Divided as follows : —	
Watering Streets and Roadmaking	·39
Supplied by Meter	5·73
Supplied to Shipping	·06
Flushing Sewers by hose	·84
Domestic and other purposes, including Drinking Fountains, Gardens, etc., by Assessment	31·17

The quantity of water used for flushing sewers during the year ended 31st December, 1896, was 13,877,296 gallons, divided as follows :—

By Hose..	12,393,296 galls.
Supplied through Automatic Sewer Flushers in St. Alban's Road, Belgrave Street, Green Lane, Mersey Street, Wellington Road, Wallasey Road, Leasowe Road, and Beaconsfield Road	1,484,000 galls.

I am, Gentlemen,

Your obedient Servant,

A. CRAIGMILE, M.A., M.D.,

Medical Officer of Health

February, 1897.

DEATHS IN THE PARISH OF WALLASEY

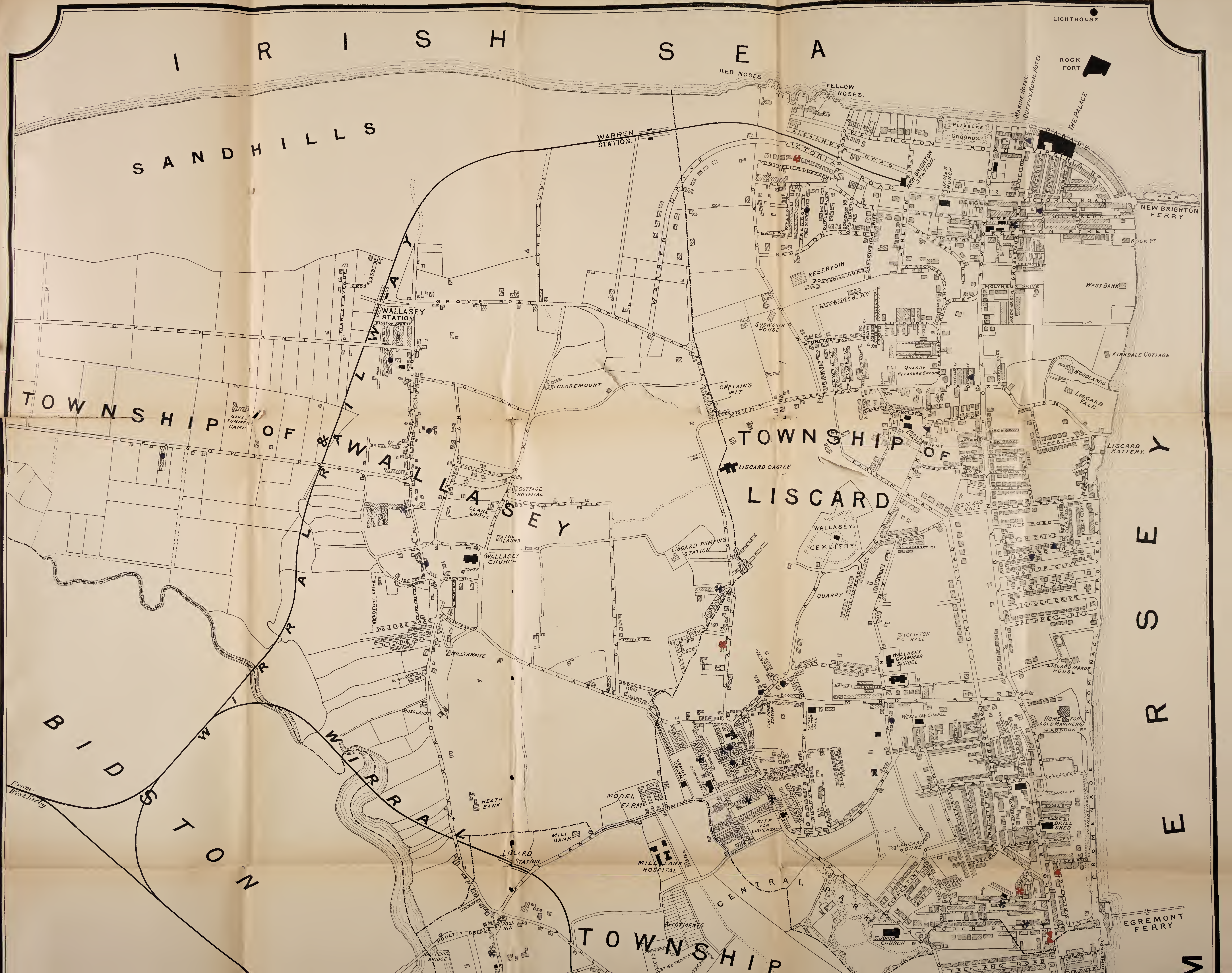
During the Year 1896. Acreage 3,408·153. Population in 1891, 33,227. Estimated Population—at the middle of 1896—41,500.

Sexes, Ages, Townships, Hospitals and Non-Residents

Diseases	Sexes M.	Sexes F.	Ages 0 to 1	1 to 2	2 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 65	65 to 85	Above 85	Townships: Poulton and Seacombe	Liscard	Wallasey	Hospitals	Non-Residents
Classes.																	
I—Zymotic Diseases	44	41	37	11	7	4	7	5	5	5	4	0	47	32	6	9	1
II—Constitutional Diseases	56	39	5	5	4	3	6	21	9	26	15	1	45	43	7	4	3
III—Local Diseases	155	148	59	17	7	6	10	17	29	74	78	6	137	148	18	16	3
IV—Developmental Diseases	41	56	62	4	1	0	0	4	1	2	17	6	54	36	7	0	1
V—Violent Deaths	19	4	1 unknown	0	0	2	2	1	7	7	3	0	13	8	2	4	4
Not specified or ill defined	6	4	5	0	0	0	0	1	0	2	2	0	6	3	1	0	0
Totals	321	292	168 (1 unknown)	37	19	15	25	49	51	116	119	13	302	270	41	33	12
Class I																	
Zymotic Diseases																	
Order 1—Miasmatic																	
1 Small-pox	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Measles	2	2	1	2	1	0	0	0	0	0	0	0	4	0	0	0	0
3 Scarlet Fever (Scarlatina)	1	3	0	0	1	2	1	0	0	0	0	0	3	1	0	3	0
4 Diphtheria	1	2	1	0	2	0	0	0	0	0	0	0	1	2	0	0	0
5 Quinsy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Croup	2	1	0	1	1	1	0	0	0	0	0	0	2	1	0	0	0
7 Whooping Cough	6	4	4	3	2	1	0	0	0	0	0	0	1	6	3	0	0
8 Typhus Fever	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 Enteric or Typhoid Fever	5	5	0	0	0	0	2	3	2	2	1	0	4	6	0	5	1
8 Simple continued Fever	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9 Erysipelas	2	3	1	0	0	0	0	0	0	2	2	0	3	1	1	1	0
10 Puerperal Fever (Metria)	0	2	0	0	0	0	1	0	1	0	0	0	1	1	0	0	0
11 Carbuncle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Cerebro-Spinal Fever	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 Dysentery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14 Diarrhœa	19	11	26	4	0	0	0	0	0	0	0	0	21	7	2	0	0
15 Cholera	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16 Ague	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17 Remittent Fever	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0
18 Rheumatic Fever	2	3	0	0	0	0	1	2	1	1	0	0	3	2	0	0	0
19 Pyœmia and Septicaemia	2	2	1	0	0	0	1	0	1	0	1	0	2	2	0	0	0
Order 2—Enthetic																	
1 Syphilis	0	2	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0
2 Hydrophobia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Glanders	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Influenza	1	1	1	1	0	0	0	0	0	0	0	0	1	1	0	0	0
Class II																	
Constitutional Diseases																	
Order 1—Diathetic																	
1 Arthritis	0	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
2 Gout	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Dropsy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Cancer	14	11	0	0	0	0	0	1	1	8	14	1	11	12	2	3	2
5 Cancrum Oris (Noma)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Mortification	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
7 Anaemia Perniciosa	0	2	0	0	0	0	0	1	1	0	0	0	1	1	0	0	0
8 Addison's & Hodgkin's Dis.	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
9 Sarcoma	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0
Order 2—Tubercular																	
1 Scrofula	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Tabes Mesenterica	5	2	2	3	2	0	0	0	0	0	0	0	3	4	0	0	0
3 Phthisis	27	16	0	1	0	0	6	18	3	15	0	0	20	19	4	0	1
4 Hydrocephalus	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0
5 Acute Tuberculosis	2	4	3	0	1	2	0	0	0	0	0	0	4	2	0	0	0
Order 3—Dietic																	
1 Rickets	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Purpura and Scurvy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Alcoholism (a) Del. Tremens	4	1	0	0	0	0	0	1	4	0	0	0	2	2	1	0	0
3 Alcoholism (b) Intemperance	1	1	0	0	0	0	0	0	0	2	0	0	1	1	0	1	0
Class III																	
Local Diseases																	
Order 1—Nervous System																	
1 Cephalitis and Myelitis	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
2 Apoplexy	13	14	0	0	0	0	0	1	0	11	14	1	14	12	1	2	0
3 Paralysis	3	1	0	0	0	0	0	0	1	0	2	1	1	2	1	0	0
4 Insanity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 Chorea	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6 Epilepsy	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0
7 Convulsions	8	13	19	1	1	0	0	0	0	0	0	0	11	8	2	0	0
8 *Brain Diseases, etc.*	7	2	0	0	1	0	1	2	1	2	2	0	5	4	0	1	0
9 Meningitis	4	4	4	3	1	0	0	0	0	0	0	0	4	3	1	0	0
10 Sunstroke	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 Loco-Motor Ataxia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 Tetanus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Order 2—Organs of Circulation																	
1 Pericarditis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Aneurism	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
3 *Heart Disease, etc.*	28	24	2	0	0	1	2	4	7	15	21	0	18	29	4	4	1
Order 3—Respiratory Organs																	
1 Goitre	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0
2 Laryngitis and Laryngismus Stridulus	3	1	1	1	0	0	0	0	0	2	0	0	3	1	0	0	0
3 Bronchitis	21	28	10	1	0	0	1	1	2	14	15	4	28	18	3	1	0
4 Pleurisy	2	0	0	0	0	0	0	0	1	0	1	0	1	1	0	0	0
5 Pneumonia	28	21	9	7	2	2	2	4	5	9	9	0	19	26	4	5	0
6 Asthma	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
7 *Lung Disease Haemoptysis, etc.*	1	1	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0
Order 4—Digestive Organs																	
1 Tonsillitis	1	2	0	0	0	1	1	0	0	0	1	0	0	3	0	0	0
2 Gastritis	2	0	1	1	0	0	0	0	0	0	0	0	1	1	0	0	0
3 Enteritis	4	7	7	2	0	0	0	0	1	1	0	0	6	5	0	0	1
4 Peritonitis	0	2	0	0	0	0	0	0	2	0	0	0	1	1	0	0	0
5 Appendicitis	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0
6 Ulceration of Intestines and Stomach	2	2	0	0	0	0	1	2	0	1	0	0	3	1	0	0	0
7 Hernia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 Ileus	2	2	1	0	0	0	0	0	0	0	3	0	1	3	0	0	0
9 Intussusception	0	2	1	0	0	0	0	0	0	1	0	0	1	1	0	0	0
10 Stricture of Intestines	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11 *Stomach Disease, etc.*	2	0	1	0	0	0	0	0	0	1	0	0	0	2	0	0	0
12 *Pancreas Disease, etc.*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 Hepatitis	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
14 Jaundice	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0
15 *Liver Disease, etc*	3	5	0	0	0	0	0	0	3	4	1	0	5	3	0	1	0
16 *Spleen Disease, etc*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Order 5—Urinary Organs																	
1 Nephritis	3	3	2	0	1	0	0	0	1	1	1	0	3	2	1	1	0
2 Bright's Disease (Nephria)	6	6	0	0	0	0	0	1	2	5	4	0	2	10	0	0	1
3 Diabetes	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0
4 Calculus (Stone)	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
5 Cystitis	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0
6 *Kidney Disease etc.*	3	1	0	0	0	0	0	1	0	2	1	0	1	2	1	1	0
Order 6—Organs of Generation																	
1 Ovarian Dropsy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 *Uterus Disease etc.*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Hæmatocele	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Order 7—Organs of Locomotion																	
1 Synovitis (Arthritis)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 *Joint Disease, etc.*	0	1	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
3 Bone Disease—Caries, etc.	0	1	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0
Order 8—Integumentary System																	
1 Phlegmon and Abscess	2	1	1	1	0	0	0	0	0	0	1	0	0	3	0	0	0
2 Ulcer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 *Skin Disease, etc.*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Class IV																	
Developmental Diseases																	
Order 1—Disease of Children																	
1 Premature Birth	12	9	21	0	0	0	0	0	0	0	0	0	11	9	1	0	0
2 Cyanosis	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
3 Spina Bifida	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0
4 Other Malformations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 Teething	3	1	1	3	0	0	0	0	0	0	0	0	2	2	0	0	1
6 Instrumental Delivery	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0
7 Atelectasis	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
Order 2—Adults																	
1 Paramenia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Childbirth and Miscarriage	0	5	0	0	0	0	0	4	1	0	0	0	3	2	0	0	0
3 Phlegmasia Dolens	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Order 3—Old People																	
1 Old Age	10	15	0	0	0	0	0	0	0	2	17	6	14	9	2	0	0
Order 4—Nutrition																	
1 Atrophy and Debility	13	25	36	1	1	0	0	0	0	0	0	0	23	12	3	0	0
Class V																	
Violent Deaths																	
Order 1—Accident or Negligence																	
1 Fractures and Contusions	5	1	0	0	0	0	0	1	0	3	2	0	6	0	0	3	0
2 Wounds: Gunshot	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Wounds: Cut, Stab	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0
3 Burns and Scalds	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0
4 Poison	0	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0
5 Drowning	8	2	1 unknown	0	0	2	1	0	5	1	0	0	4	5	1	0	4
6 Suffocation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 Otherwise	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Order 3—Homicide	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Order 4—Suicide	4	0	0	0	0	0	0	0	1	2	1	0	2	1	1	0	0
Causes not specified or ill defined	5	4	5	0	0	0	0	1	0	2	1	0	6	2	1	0	0
Tumours	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0

Months, Quarters, Year and Total

Diseases	Months 1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	Quarters 1st	2nd	3rd	4th	Year	TOTAL
Classes.																		
I—Zymotic Diseases	4	1	11	4	3	6	16	12	5	5	9	9	16	13	33	23	85	
II—Constitutional Diseases	9	5	10	7	5	9	3	6	4	10	15	12	24	21	13	37	95	
III—Local Diseases	24	30	31	33	26	15	20	20	9	20	38	37	85	74	49	95	303	
IV—Developmental Diseases	9	3	15	7	6	5	12	7	9	9	6	9	27	18	28	24	97	
V—Violent Deaths	0	1	2	3	2	3	3	2	2	3	2	0	3	8	7	5	23	
Not specified or ill defined	0	0	0	2	4	1	1	0	0	2	0	0	0	7	1	2	10	
Totals	46	40	69	56	46	39	55	47	29	49	70	67	155	141	131	186	613	613
Class I																		
Zymotic Diseases																		
Order 1—Miasmatic																		
1 Small-pox	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2 Measles	1	0	0	0	1	0	2	0	0	0	0	0	1	1	2	0	4	
3 Scarlet Fever (Scarlatina)	0	1	0	0	0	0	1	0	1	1	0	0	1	0	2	1	4	
4 Diphtheria	0	0	0	0	0	0	0	1	0	0	1	1	0	0	1	2	3	
5 Quinsy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6 Croup	0	0	1	0	0	0	0	0	0	0	1	1	1	0	0	2	3	
7 Whooping Cough	0	0	0	0	0	1	0	1	0	1	4	3	0	1	1	8	10	
8 Typhus Fever	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8 Enteric or Typhoid Fever	1	0	2	0	1	1	0	0	2	0	1	2	3	2	2	3	10	
8 Simple continued Fever	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9 Erysipelas	0	0	3	0	0	0	0	0	0	1	0	1	3	0	0	2	5	
10 Puerperal Fever (Metria)	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	2	
11 Carbuncle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12 Cerebro-Spinal Fever	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13 Dysentery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
14 Diarrhœa	0	0	1	0	0	3	12	10	2	1	1	0	1	3	24	2	30	
15 Cholera	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16 Ague	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17 Remittent Fever	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	
18 Rheumatic Fever	0	0	0	3	1	0	1	0	0	0	0	0	0	4	1	0	5	
19 Pyœmia and Septicaemia	1	0	1	1	0	0	0	0	0	1	0	0	2	1	0	1	4	
Order 2—Enthetic																		
1 Syphilis	0	0	0	0	0	1	0	0	0	0	0	1	0	1	0	1	2	
2 Hydrophobia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3 Glanders	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4 Influenza	0	0	2	0	0	0	0	0	0	0	0	0	2	0	0	0	2	85
Class II																		
Constitutional Diseases																		
Order 1—Diathetic																		
1 Arthritis	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	
2 Gout	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3 Dropsy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4 Cancer	2	0	1	4	3	0	2	3	1	1	5	3	3	7	6	9	25	
5 Cancrum Oris (Noma)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6 Mortification	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	1	
7 Anaemia Perniciosa	0	0	0	0	1	0	0	1	0	0	0	0	0	1	1	0	2	
8 Addison's & Hodgkin's Dis.	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	
9 Sarcoma	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	
Order 2—Tubercular																		
1 Scrofula	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2 Tabes Mesenterica	0	0	3	0	0	1	0	0	1	1	0	1	3	1	1	2	7	
3 Phthisis	5	3	4	2	1	5	1	1	2	6	9	4	12	8	4	19	43	
4 Hydrocephalus	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	
5 Acute Tuberculosis	0	1	1	0	0	1	0	0	0	0	1	2	2	1	0	3	6	
Order 3—Dietic																		
1 Rickets	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2 Purpura and Scurvy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3 Alcoholism (a) Del. Tremens	1	1	0	1	0	1	0	1	0	0	0	0	2	2	1	0	5	
3 Alcoholism (b) Intemperance	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2	2	95
Class III																		
Local Diseases																		
Order 1—Nervous System																		
1 Cephalitis and Myelitis	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	
2 Apoplexy	4	3	0	5	4	0	1	2	0	1	4	3	7	9	3	8	27	
3 Paralysis	0	1	1	0	0	0	0	0	0	0	1	1	2	0	0	2	4	
4 Insanity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5 Chorea	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6 Epilepsy	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	
7 Convulsions	1	1	5	0	3	0	1	4	1	2	1	2	7	3	6	5	21	
8 *Brain Diseases, etc.*	1	2	1	1	0	0	1	0	0	0	1	2	4	1	1	3	9	
9 Meningitis	2	0	0	0	2	1	0	0	0	0	1	2	2	3	0	3	8	
10 Sunstroke	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11 Loco-Motor Ataxia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12 Tetanus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Order 2—Organs of Circulation																		
1 Pericarditis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2 Aneurism	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	
3 *Heart Disease, etc.*	5	7	2	9	5	0	4	5	1	3	5	6	14	14	10	14	52	
Order 3—Respiratory Organs																		
1 Goitre	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	
2 Laryngitis and Laryngismus Stridulus	0	0	1	3	0	0	0	0	0	0	0	0	1	3	0	0	4	
3 Bronchitis	3	4	4	4	4	2	2	2	2	3	8	11	11	10	6	22	49	
4 Pleurisy	0	1	1	0	0	0	0	0	0	0	0	0	2	0	0	0	2	
5 Pneumonia	3	7	6	4	2	6	1	2	2	6	6	4	16	12	5	16	49	
6 Asthma	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	
7 *Lung Disease Haemoptysis, etc.*	0	0	2	0	0	0	0	0	0	0	0	0	2	0	0	0	2	
Order 4—Digestive Organs																		
1 Tonsillitis	0	1	2	0	0	0	0	0	0	0	0	0	3	0	0	0	3	
2 Gastritis	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0	1	2	
3 Enteritis	0	0	2	0	0	0	3	4	0	2	0	0	2	0	7	2	11	
4 Peritonitis	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	2	
5 Appendicitis	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	1	
6 Ulceration of Intestines and Stomach	0	0	1	0	0	1	0	0	0	0	2	0	1	1	0	2	4	
7 Hernia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8 Ileus	0	0	1	2	0	0	0	0	0	0	0	1	1	2	0	1	4	
9 Intussusception	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1	0	2	
10 Stricture of Intestines	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11 *Stomach Disease, etc.*	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2	
12 *Pancreas Disease, etc.*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13 Hepatitis	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	
14 Jaundice	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	
15 *Liver Disease, etc*	2	1	0	2	0	1	1	1	0	0	0	0	3	3	2	0	8	
16 *Spleen Disease, etc*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Order 5—Urinary Organs																		
1 Nephritis	0	0	1	2	1	0	1	0	0	0	1	0	1	3	1	1	6	
2 Bright's Disease (Nephria)	1	0	0	1	2	1	1	0	2	1	2	1	1	4	3	4	12	
3 Diabetes	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	
4 Calculus (Stone)	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	
5 Cystitis	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	
6 *Kidney Disease etc.*	1	0	0	0	0	0	2	0	1	0	0	0	1	0	3	0	4	
Order 6—Organs of Generation																		
1 Ovarian Dropsy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2 *Uterus Disease etc.*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3 Hæmatocele	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Order 7—Organs of Locomotion																		
1 Synovitis (Arthritis)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2 *Joint Disease, etc.*	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	
3 Bone Disease—Caries, etc.	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	
Order 8—Integumentary System																		
1 Phlegmon and Abscess	0	0	1	0	0	0	0	0	0	0	2	0	1	0	0	2	3	
2 Ulcer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3 *Skin Disease, etc.*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	303
Class IV																		
Developmental Diseases																		
Order 1—Disease of Children																		
1 Premature Birth	1	1	5	3	1	1	1	1	2	4	0	1	7	5	4	5	21	
2 Cyanosis	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	
3 Spina Bifida	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	
4 Other Malformations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5 Teething	1	0	1	0	0	1	0	0	0	0	0	1	2	1	0	1	4	
6 Instrumental Delivery	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	
7 Atelectasis	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	
Order 2—Adults																		
1 Paramenia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2 Childbirth and Miscarriage	1	1	1	0	0	0	2	0	0	0	0	0	3	0	2	0	5	
3 Phlegmasia Dolens	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Order 3—Old People																		
1 Old Age	3	0	4	2	2	1	2	2	2	1	1	5	7	5	6	7	25	
Order 4—Nutrition																		
1 Atrophy and Debility	1	1	4	2	2	2	7	4	5	3	5	2	6	6	16	10	38	97
Class V																		
Violent Deaths																		
Order 1—Accident or Negligence																		
1 Fractures and Contusions	0	1	1	1	0	0	0	1	0	1	1	0	2	1	1	2	6	
2 Wounds: Gunshot	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2 Wounds: Cut, Stab	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	
3 Burns and Scalds	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	
4 Poison	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	
5 Drowning	0	0	1	1	0	3	3	0	0	2	0	0	1	4	3	2	10	
6 Suffocation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7 Otherwise	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Order 3—Homicide	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Order 4—Suicide	0	0	0	1	1	0	0	0	1	0	1	0	0	2	1	1	4	23
Causes not specified or ill defined	0	0	0	2	4	1	1	0	0	1	0	0	0	7	1	1	9	
Tumours	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	10


IRISH SEA
SANDHILLS
LIGHTHOUSE
ROCK FORT
RED NOSES
YELLOW NOSES.
WARREN STATION.
PLEASURE GROUNDS
MARINE HOTEL
QUEEN'S ROYAL HOTEL
THE PALACE
PARADE
WELLINGTON ROAD
VICTORIA ROAD
NEW BRIGHTON STATION.
ST JAMES CHURCH
PIER
NEW BRIGHTON FERRY
ROCK PT
RESERVOIR
WEST BANK
MOLYNEUX DRIVE
SUDWORTH RD.
SUDWORTH HOUSE
KIRKDALE COTTAGE
WOODLANDS
LISCARD VALE
QUARRY PLEASURE GROUND
MOUNT PLEASANT ROAD
CAPTAIN'S PIT
WALLASEY STATION
GROVE ROAD
GREEN LANE
CLAREMOUNT
TOWNSHIP OF WALLASEY
GIRLS' SUMMER CAMP
TOWNSHIP OF LISCARD
LISCARD CASTLE
LISCARD BATTERY.
ZIG ZAG HALL
WALLASEY CEMETERY
LISCARD PUMPING STATION
COTTAGE HOSPITAL
CLARE LODGE
THE LAUND
WALLASEY CHURCH
TOWER
QUARRY
CLIFTON HALL
WALLASEY GRAMMAR SCHOOL
LISCARD MANOR HOUSE
MANOR ROAD
HOME FOR AGED MARINERS
WESLEYAN CHAPEL
WALLACRE ROAD
HILLSIDE ROAD
MILLTHWAITE
MOSSLANDS
HEATH BANK.
MODEL FARM
SITE FOR DISPENSARY
MILL BANK
LISCARD STATION
MILL LANE HOSPITAL
LISCARD HOUSE
DRILL SHED
CENTRAL PARK
ALLOTMENTS
ST JOHNS CHURCH
EGREMONT FERRY
POOL INN
POULTON BRIDGE
HALFPENNY BRIDGE
FALKLAND ROAD
PROMENADE
WIRRAL RAILWAY
WIRRAL
BIDSTON
From West Kirby
TOWNSHIP
MERSEY

WALLASEY
URBAN DISTRICT COUNCIL.

MAP
OF PART OF THE
PARISH OF WALLASEY.
1896.

SCALE.

100 0 100 200 300 400 500 600 700 800 900 1000 Yards.

1896.

REFERENCES.

MEASLES	●	4
SCARLET FEVER	▲	4
DIPHTHERIA AND CROUP	✠	6
WHOOPING COUGH	●	10
TYPHOID	▲	10
DIARRHŒA	✠	30

TOWNSHIP OF POULTON-CUM-SEACOMBE

BIRKENHEAD

RIVER MERSEY

From West Kirby

To Mersey Tunnel

HEATH BANK.
MODEL FARM
MILL BANK
LISCARD STATION
MILL LANE HOSPITAL
SITE FOR DISPENSARY
LISCARD HOUSE
DRILL SHED
CENTRAL PARK
ALLOTMENTS
POOL INN
POULTON BRIDGE
HALFPENNY BRIDGE
ST JOHNS CHURCH
EGREMONT FERRY
OIL STORES
WESLEYAN CHAPEL
RIVERVIEW
BOARD SCHOOL
WELCH CHAPEL
GUINEA GAP
OAKDALE
ROMAN CATHOLIC CHAPEL
WALLASEY GAS AND WATER WORKS
OIL MILL
GRAVING DOCK
GRAVING DOCK
WALLASEY DESTRUCTOR AND STABLES
GREAT FLOAT
WEST DOCK
DUKE ST BRIDGE
GRAIN WAREHOUSES
GUANO WORKS
GANDY BELT WORKS
ST PAULS CHURCH
SEACOMBE STATION
VICTORIA PLACE
SEACOMBE FERRY
MERSEY VIEW
ALFRED LAIRAGES
ALFRED DOCK
HYDRAULIC TOWER
WALLASEY DOCK
EGERTON DOCK
MORPETH DOCK
MORPETH BRANCH DOCK.
WOODSIDE FERRY